



## State of Utah

JON M. HUNTSMAN, JR.  
*Governor*

GARY HERBERT  
*Lieutenant Governor*

## Department of Environmental Quality

William J. Sinclair  
*Acting Executive Director*

DIVISION OF AIR QUALITY  
Cheryl Heying  
Director

DAQE-IN0101220049-09

March 26, 2009

Parke Moore  
Flying J Incorporated  
Big West Oil Company  
333 W Center  
North Salt Lake, UT 84054

Dear Mr. Moore:

Re: Intent to Approve: Approval Order: Modification to Tank #29, Davis County; CDS A; MACT (Part 63), NSPS (Part 60), Nonattainment or Maintenance Area, PM<sub>10</sub> SIP / Maint Plan, Title V (Part 70)  
Project Number: N010122-0049

The attached document is the Intent to Approve for the above-referenced project. The Intent to Approve is subject to public review. Any comments received shall be considered before an Approval Order is issued. The Division of Air Quality is authorized to charge a fee for reimbursement of the actual costs incurred in the issuance of an Approval Order. An invoice will follow upon issuance of the final Approval Order.

Future correspondence on this Intent to Approve should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. The project engineer for this action is Camron Harry, who may be reached at (801) 536-4232.

Sincerely,

Ty L Howard, Manager  
New Source Review Section

TLH:CAH:kw

cc: Mike Owens  
Davis County Health Department

**STATE OF UTAH**

**Department of Environmental Quality**

**Division of Air Quality**

**INTENT TO APPROVE: Approval Order: Modification to  
Tank #29**

**Prepared By: Camron Harry, Engineer**

**Phone: (801) 536-4232**

**Email: caharry@utah.gov**

**INTENT TO APPROVE NUMBER**

**DAQE-IN0101220049-09**

**Date: March 26, 2009**

**Flying J Refinery (Big West Oil Co.)**

**Source Contact:**

**Parke Moore, Environmental Specialist**

**Phone: (801) 296-7834**

**Ty L Howard, Manager  
New Source Review Section  
Utah Division of Air Quality**

## **ABSTRACT**

Big West Oil, LLC (Flying J Refinery) is requesting a modification to their current Approval Order DAQE-AN0101220048-08. This modification includes changing Tank 29 from a diesel to a gasoline storage tank and equipping it with an internal floating roof. Tank 29 will have a potential to emit of 3.39 tons per year of VOCs. The refinery is located in Davis County, which is a Maintenance area for O<sub>3</sub>. In addition, the Flying J Refinery is listed in the PM<sub>10</sub> SIP as a contributing source for Salt Lake County. NSPS - Subpart Kb: Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 apply to this tank. NESHAP and MACT regulations do not apply to this tank. Title V of the 1990 Clean Air Act applies to this source.

The NOI for the above-referenced project has been evaluated and has been found to be consistent with the requirements of UAC R307. Air pollution producing sources and/or their air control facilities may not be constructed, installed, established, or modified prior to the issuance of an AO by the Executive Secretary of the Utah Air Quality Board.

A 30-day public comment period will be held in accordance with UAC R307-401-7. A notification of the intent to approve will be published in the Davis County Clipper on March 31, 2009. During the public comment period the proposal and the evaluation of its impact on air quality will be available for the public to review and provide comment. If anyone so requests a public hearing, it will be held in accordance with UAC R307-401-7. The hearing will be held as close as practicable to the location of the source. Any comments received during the public comment period and the hearing will be evaluated. The proposed conditions of the AO may be changed as a result of the comments received.

### **Name of Permittee:**

Flying J Incorporated  
Big West Oil Company  
333 W Center  
North Salt Lake, UT 84054

### **Permitted Location:**

Flying J Refinery (Big West Oil Co.)  
333 W Center St  
North Salt Lake, UT 84054

**UTM coordinates:** 431,500 m Easting, 4,535,400 m Northing

**SIC code:** 2911 (Petroleum Refining)

## **Section I: GENERAL PROVISIONS**

- I.1 All definitions, terms, abbreviations, and references used in this AO conform to those used in the UAC R307 and 40 CFR. Unless noted otherwise, references cited in these AO conditions refer to those rules. [R307-101]
- I.2 The limits set forth in this AO shall not be exceeded without prior approval. [R307-401]
- I.3 Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved. [R307-401-1]
- I.4 All records referenced in this AO or in other applicable rules, which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or Executive Secretary's representative upon request, and the records shall include the two-year period prior to the date of the

request. Unless otherwise specified in this AO or in other applicable state and federal rules, records shall be kept for a minimum of five (5) years. [R307-401] [R307-415-6b]

- I.5 At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this AO, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded. [R307-401-4]
- I.6 The owner/operator shall comply with R307-150 Series. Inventories, Testing and Monitoring. [R307-150]
- I.7 The owner/operator shall comply with UAC R307-107. General Requirements: Unavoidable Breakdowns. [R307-107]

## **Section II: SPECIAL PROVISIONS**

### **II.A The approved installations shall consist of the following equipment:**

- II.A.1 **Refinery**  
Source Wide
- II.A.2 **Tank 3**  
Crude Oil Storage- 80,000 bbl with external floating roof
- II.A.3 **Tank 7**  
Wastewater Storage - 30,000 bbl with internal floating roof
- II.A.4 **Tank 9**  
Wastewater Equalization - 20,000 bbl with internal floating roof
- II.A.5 **Tank 19**  
Petroleum Liquid Storage - 10,000 bbl with vertical fixed roof
- II.A.6 **Tank 29**  
Gasoline Storage - 40,000 bbl with internal floating roof
- II.A.7 **Tank 45**  
Petroleum Liquid Storage - 40,000 bbl with internal floating roof
- II.A.8 **Tank 56**  
Petroleum Liquid Storage - 3,000 bbl with internal floating roof
- II.A.9 **Tank 87**  
Ethanol Tank - 7,250 bbl with internal floating roof with mechanical shoe

## **II.B Requirements and Limitations**

### **II.B.1 VOC and HAPs Limitations**

II.B.1.a The facility shall abide by all applicable requirements of R307-325 through R307-341 for VOC sources located in ozone Maintenance areas. At a minimum, Reasonable Available Control Technology (RACT) control measures are required and BACT will be no less stringent than RACT. To be in compliance, this facility must operate in accordance with the most current version of R307-325 through R307-341 or the applicable section(s), if renumbered. [R307-325]

II.B.1.b The combined VOC emissions from tanks listed in this AO shall not exceed 21.9 tons per rolling 12-month period.

The VOCs emitted to the atmosphere shall be calculated using EPA approved methodologies on a monthly basis. Compliance with the limitation shall be determined on a rolling 12-month total. Based on the first day of each month a new 12-month total shall be calculated using data from the previous 12 months. Records of VOC emissions shall be kept for all periods when the plant is in operation. [R307-102]

### **II.B.2 Limitations and Test Procedures**

II.B.2.a The following true vapor pressures (TVP) shall not be exceeded:

- A. Tank 3: 11.1 psia
- B. Tank 7: 20.7 kPa (3 psia)
- C. Tank 9: 3.56 psia
- D. Tank 19: 4.8 kPa (0.7 psia)
- E. Tank 29: 10.0 psia
- F. Tank 45: 10.0 psia
- G. Tank 56: 11.1 psia
- H. Tank 87: 2.0 psia

Compliance with the TVP limit shall be determined by maintaining monthly records of the type and maximum TVP of material stored in each tank for all periods when the plant is in operation. [R307-102]

## **Section III: APPLICABLE FEDERAL REQUIREMENTS**

In addition to the requirements of this AO, all applicable provisions of the following federal programs have been found to apply to this installation. This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including UAC R307.

NSPS (Part 60), GGG: VOC Equip Leaks Petro Refineries  
NSPS (Part 60), K: Petrol Storage Vessel 6/11/73~5/19/78  
NSPS (Part 60), GGGa: Refinery VOC Leaks after 11/7/06  
NSPS (Part 60), Ka: Petrol Storage Vessel 5/18/78~7/23/84  
NSPS (Part 60), QQQ: VOC Emis Petro Ref Wastewtr Sys

NSPS (Part 60), J: Petroleum Refineries  
NSPS (Part 60), A: General Provisions  
NSPS (Part 60), Kb: VolatLiq/PetroStorageVessel 7/23/84  
MACT (Part 63), CC: Petroleum Refineries

### **PERMIT HISTORY**

The final AO will be based on the following documents:

Replaces	DAQE-AN0101220048-08 dated May 8, 2008
Is Derived From	NOI dated March 10, 2008

## ACRONYMS

The following lists commonly used acronyms and their associated translations as they apply to this document:

40 CFR	Title 40 of the Code of Federal Regulations
AO	Approval Order
ATT	Attainment Area
BACT	Best Available Control Technology
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CDS	Classification Data System (used by EPA to classify sources by size/type)
CEM	Continuous emissions monitor
CEMS	Continuous emissions monitoring system
CFR	Code of Federal Regulations
CO	Carbon monoxide
COM	Continuous opacity monitor
DAQ	Division of Air Quality (typically interchangeable with UDAQ)
DAQE	This is a document tracking code for internal UDAQ use
EPA	Environmental Protection Agency
HAP or HAPs	Hazardous air pollutant(s)
ITA	Intent to Approve
MACT	Maximum Achievable Control Technology
NAA	Nonattainment Area
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOI	Notice of Intent
NO <sub>x</sub>	Oxides of nitrogen
NSPS	New Source Performance Standard
NSR	New Source Review
PM <sub>10</sub>	Particulate matter less than 10 microns in size
PM <sub>2.5</sub>	Particulate matter less than 2.5 microns in size
PSD	Prevention of Significant Deterioration
R307	Rules Series 307
R307-401	Rules Series 307 - Section 401
SO <sub>2</sub>	Sulfur dioxide
Title IV	Title IV of the Clean Air Act
Title V	Title V of the Clean Air Act
UAC	Utah Administrative Code
UDAQ	Utah Division of Air Quality (typically interchangeable with DAQ)
VOC	Volatile organic compounds